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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,227	08/20/2004	Alban Couturier	Q83028	2136

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SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

CHRISS, ANDREW W

ART UNIT	PAPER NUMBER
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2619

NOTIFICATION DATE	DELIVERY MODE
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01/28/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
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USPatDocketing@sughrue.com

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Office Action Summary	Application No.		Applicant(s)	
	10/505,227		COUTURIER, ALBAN	
	Examiner		Art Unit	
	Andrew Chriss		2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment, filed November 20, 2007, has been entered and carefully considered.
2. In light of Applicant's amendment to the abstract, objection to the specification is withdrawn.
3. In light of Applicant's amendment to the drawings, objection to the drawings is withdrawn.
4. In light of Applicant's amendment to Claims 1-14, objection to said claims is withdrawn.
5. In light of Applicant's amendment to Claim 4, rejection of said claim under 35 U.S.C. 112, second paragraph, is withdrawn.

Claim Rejections - 35 USC § 112

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
7. **Claims 1 and 9** rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is a lack of antecedent basis for "each set of microflows" in the amended claim language. Specifically, the claim language cites "means for receiving quality of service requests that each correspond to *a respective microflow*" (emphasis added). Phrases "a respective microflow" and "each set of microflows" are not commensurate in scope. Therefore, Examiner assumes that a request is received for a single microflow. Further, Examiner interprets

amended claim language "wherein the control means effects said control of said elements of said data network only once for the quality of service requests of each set of microflows defined in that the quality of service request of each microflow is correlated with the quality of service request of every other microflow in said set" as comparing quality of service requests of respective microflows to one another.

Claim Rejections - 35 USC § 102

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. **Claims 1-6 and 8-11** rejected under 35 U.S.C. 102(e) as being anticipated by Roberts (United States Patent Application Publication US 2002/0057699 A1).

Regarding Claim 1, Roberts teaches a system for controlling a data network 200, which includes a line card in a switch 220 that receives QoS requests that each correspond to a respective microflow (paragraph 0046). Specifically, each microflow is characterized by a set of QoS descriptors, such as guaranteed rate and maximum delay for each microflow. The switch performs functions to control elements in the data network, in that the switch schedules the transmission of the microflow data packets (Figure 6) and determines the path that will be taken (Figure 7). Further, in an exemplary embodiment shown in Figure 3B (a QoS field for each microflow), the switch performs a queuing technique, such as weighted fair queuing, using the QoS descriptors associated with each microflow (paragraph 0054). Therefore, the system contains means for correlating the QoS requests and control means effect the control only once for the correlated requests.

Regarding Claim 2, Roberts teaches the variables used to identify a data flow can include the protocol type, the source address, the destination address, the TCP/UDP source port number and the TCP/UDP destination port number (paragraph 0045), which was known in the art at the time the invention was made to comprise Applicant's claimed 5-tuple.

Regarding Claim 3, Roberts teaches the examination of both the source address and the destination address, as discussed with regards to Claim 2 above.

Regarding Claim 5, Roberts teaches in Figure 6 that the network elements can be monitored atomically; that is, the resources are assigned (scheduled transmission) if and only if all of the resource reservation requests can be satisfied (step 642).

Regarding Claim 6, Roberts teaches in Figure 6 that a determination is made as to whether to admit the data packet (step 642) prior to scheduling transmission of the microflow, and therefore controlling network elements.

Regarding Claim 8, Roberts teaches a network switch that relies upon per flow state information including QoS and routing information to allow a network to route IP data packets within specific QoS constraints between a source, which can be on either side of network 200 shown in Figure 2, and a destination (paragraph 0039).

Claim 9 contains substantially the same subject matter as Claim 1, as disclosed by Roberts above. Roberts further teaches a microflow classifier which reserves bandwidth and determines the path of a packet (Figures 5-7), thus performing the function of Applicant's claimed admission controller.

Claim 10 contains substantially the same subject matter as Claim 2, as disclosed by Roberts above.

Claim 11 contains substantially the same subject matter as Claim 3, as disclosed by Roberts above.

Claim 13 contains substantially the same subject matter as Claim 8, as disclosed by Roberts above.

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. **Claim 4** rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts as applied to claim 1 above, and further in view of Zadikian et al (United States Patent 6,631,134), hereinafter Zadikian. Roberts teaches all of the limitations of Claim 1, as described above. Further, Roberts teaches reservation means (microflow classifier 530) that are remote (i.e., separate components) from control means (microflow recognizer 520) in Figure 5. However, Roberts does not explicitly teach a software module. In the same field of endeavor, Zadikian teaches a line card which integrates software functions (column 13, line 55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the line card software taught in Zadikian with the reservation means and control means taught in Roberts in order to improve restoration times in a mesh network, as well as allow a service provider to automatically allocate bandwidth between two of a number of nodes in response to a request by an end-user.

12. **Claims 7 and 12** rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts as applied to claims 1 and 9 above, and further in view of Hauck (United States Patent 6,977,932). Roberts teaches all of the limitations of Claim 1 and 9, as described above. However, Roberts

does not teach the correlated reservation requests sharing the same bandwidth. In the same field of endeavor, Hauck teaches microflows, the equivalent of Applicant's claimed correlated reservation requests, sharing bandwidth (column 18, line 30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the bandwidth-sharing taught in Hauck with the microflow management system taught in Roberts in order to provide a mechanism for processing aggregate flow blocks in a similar manner without introducing prohibitively time-consuming and processor intensive tasks to the network system (column 3, line 64 – column 4, line 2).

13. **Claim 14** rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts in view of Eard et al (United States Patent Application Publication US 2002/0069238 A1), hereinafter Eard. Roberts teaches an admission controller, as described with regards to Claims 1 and 9 above, that is associated with a domain of a data network, which contains means for receiving a single resource reservation request corresponding to correlated quality of service requests and control means for controlling the elements of that domain. However, Roberts does not teach the admission controller comprising means for communicating the single resource reservation request to an admission controller of a second domain. In the same field of endeavor, Eard teaches an (abstract data transfer) ADT agent, equivalent in function to Applicant's claimed admission controller, that receives a resource request and can forward it to another ADT agent, which is responsible for another domain (paragraph 0014). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the ADT agent taught in Eard with the microflow management system taught in Roberts in order to centrally store

specific locations, addresses, or access protocols for each resource to be accessed (paragraph 0010).

Response to Arguments

14. Applicant's arguments filed November 20, 2007, with respect to rejection of **Claims 8 and 13** under 35 U.S.C. 112, second paragraph, have been fully considered and are persuasive. The rejection of Claims 8 and 13 under 35 U.S.C. 112, second paragraph, has been withdrawn.

15. Applicant's arguments filed November 20, 2007 with respect to rejection of **Claims 1-6 and 8-11** under 35 U.S.C. 102(e) have been fully considered but they are not persuasive.

Applicant states that Roberts does not teach "receiving quality of service requests that correspond to respective microflow," "correlating the quality of service requests," or "effect[ing] said control of said elements of said data network only once for the quality of service requests of each set of microflows." However, Roberts teaches a microflow comprising QoS descriptors, such as packet discard time limit, guaranteed rate, etc (paragraph 0046). Further, Roberts teaches a queuing technique, such as weighted fair queuing, that can be used to ensure that the QoS of each microflow is achieved. As the weighted fair queuing is based on the QoS descriptors, this is equivalent to correlating quality of service requests with one another. Lastly, as the QoS descriptors are analyzed for each microflow, this is equivalent to effecting control only once for a given microflow. Therefore, rejection of Claims 1-6 and 8-11 under 35 U.S.C. 102(e) is maintained.

16. Applicant's arguments filed November 20, 2007 with respect to rejection of **Claims 4, 7, 12, and 14** under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

Applicant states that Roberts is deficient vis-à-vis independent claims 1 and 9 and that the secondary references cited in rejection of Claims 4, 7, 12, and 14 fail to compensate for the deficiencies of Roberts. However, as noted above, Roberts teaches all of the limitations of independent claims 1 and 9. Therefore, rejection of Claims 4, 7, 12, and 14 under 35 U.S.C. 103(a) is maintained.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Chriss whose telephone number is 571-272-1774. The examiner can normally be reached on Monday - Friday, 7:30 AM - 5:00 PM.

Application/Control Number:
10/505,227
Art Unit: 2619

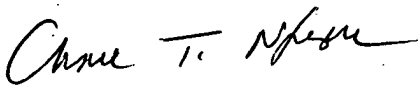
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrew Chriss
Examiner
Art Unit 2619

AC


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